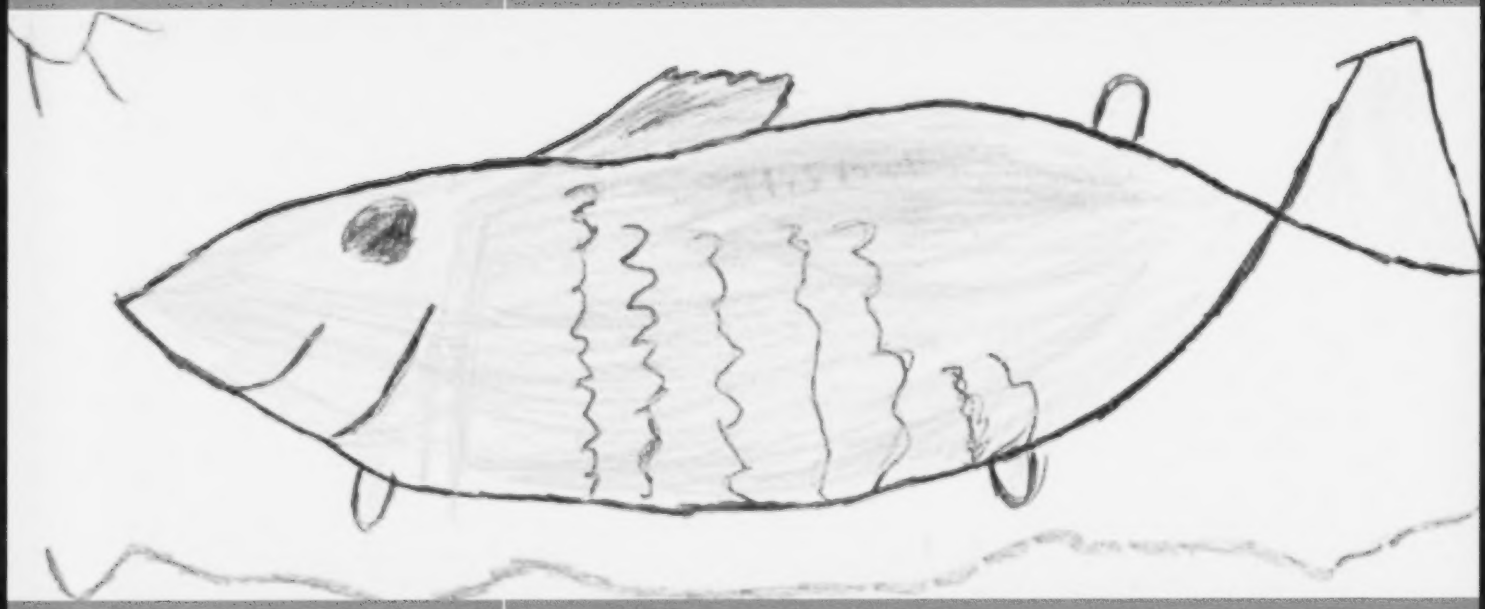
COMMUNITY-BASED

Fish and Wildlife Work Plan



Little Salmon Carmacks First Nation
Traditional Territory 2012-2017

COMMUNITY-BASED FISH AND WILDLIFE WORK PLAN FOR THE LITTLE SALMON/CARMACKS FIRST NATION TRADITIONAL TERRITORY 2012-2017

For additional copies of this report contact:

Director, Fish and Wildlife Branch
Environment Yukon (V-5A)
P.O. Box 2703
Whitehorse, Yukon Y1A 2C6
E-mail: fish.wildlife@gov.yk.ca

Little Salmon/Carmacks First Nation
P.O. Box 135
Carmacks, Yukon YOB ICO

Carmacks Renewable Resources Council
P.O. Box 122
Carmacks, Yukon, YOB 1C0
E-mail: carmacksrrc@northwestel.net

This report may be cited as:
Little Salmon/Carmacks Fish and Wildlife Planning Team. 2011. Community based-fish and wildlife work plan for the Little Salmon/Carmacks First Nation Traditional Territory (2012 – 2017). Environment Yukon, Whitehorse (36 pages).

Front cover: Salmon, *Alisha Fairclough*
Wolf, *Hayley Mintz*

Back cover: Bear, *Brian Smart, YG*
Sheep, *K. Meister, YG*
Bearberry, *Bruce Bennett, YG*

Disclaimer:
This Community-Based Fish and Wildlife Work Plan shall not create any commitments or obligations that are legally binding on the planning participants or create or affect any legal rights of the planning participants. Without limiting the generality of the foregoing, this Community-Based Fish and Wildlife Work Plan shall not create, affect, define, interpret or apply any roles, responsibilities, rights or interests under the Little Salmon/Carmacks First Nation Final or Self-Government Agreements.

TABLE OF CONTENTS

INTRODUCTION **4**
WHAT IS THIS PLAN ABOUT 4
HOW THIS PLAN WAS DEVELOPED 6
STRUCTURE OF THE PLAN 7

PRIORITY CONCERNS **8**
PRIORITY ISSUES 8
ACCESS AND ENFORCEMENT 9
THE PREVIOUS PLAN- 2004-2009 9

CURRENT ISSUES **10**
BEARS 10
BISON 11
CARIBOU 12
Tatchun Herd 12
Klaza Herd 14
ELK 16
FRESHWATER FISH 19
FOXES 21
HABITAT 22
MOOSE 23
RECREATION 27
SHEEP 28
TRAPPING 29
WOLVES 30

WORK PLAN REVIEW **31**

APPENDICES **32**
APPENDIX A – CONCERNS FROM THE PREVIOUS PLAN 32
APPENDIX B – CONCERNS NOT ADDRESSED 34
APPENDIX C – SUMMARY OF PROPOSED SURVEYS 35

introduction

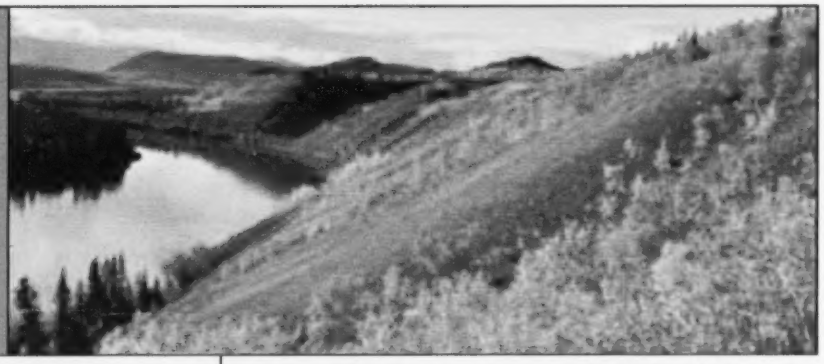


Photo: *Martin Couchesne*

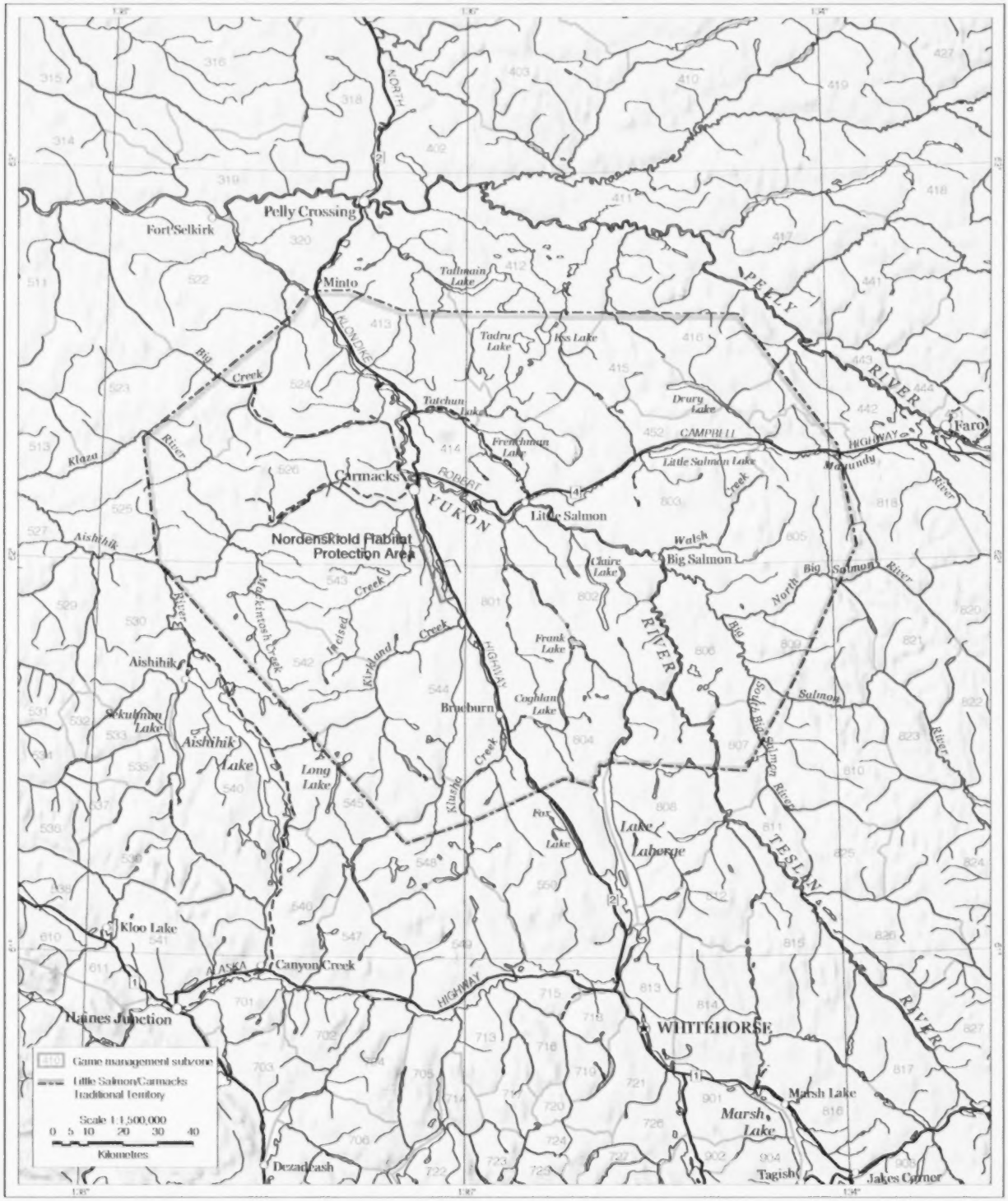
WHAT IS THIS PLAN ABOUT

This community-based work plan is part of the ongoing co-operative approach to fish and wildlife management within the Little Salmon/Carmacks First Nation traditional territory. This plan was developed by Little Salmon/Carmacks First Nation (LS/CFN), Carmacks Renewable Resources Council (CRRC) and Yukon government (YG); hereafter referred to as the planning participants. It is intended to be implemented between 2012 and 2017, and attempts to coordinate the efforts of the planning participants to address local concerns about fish and wildlife in the LS/CFN traditional territory.

Development of community-based fish and wildlife work plans originated in the community of Mayo in 1993 and have been applied throughout Yukon to engage First Nations and renewable resources councils in fish and wildlife work planning. The *Community-Based Fish and Wildlife Work Plan for the LS/CFN Traditional Territory 2012 – 2017* is the second work plan for this traditional territory. The plan follows the *Community-Based Fish and Wildlife Management Plan for the Little Salmon/Carmacks First Nation Traditional Territory (2004 – 2009)*.

This document is intended to guide management of fish and wildlife populations, and habitat in the LS/CFN traditional territory from 2012 to 2017. Identification of planning participants to carry out the proposed work is done with the best available knowledge of existing resources; however, implementation of the proposed work is subject to management priorities and budgetary constraints for each of the planning participants.

Figure 1. Little Salmon/Carmacks First Nation traditional territory.



HOW THIS PLAN WAS DEVELOPED

The Plan was developed through the following steps:

- A joint review of the 2004-2009 plan by the planning participants;
- Identification of community issues and concerns;
- Plan development at a community open house; and
- Plan writing, review by planning participants, and printing of the plan.

In February, 2009 a review of the past plan was completed and the planning participants agreed a renewed plan would be developed. In April 2010 a survey was sent to Carmacks area residents regarding any concerns community members had about fish and wildlife in the LS/CFN traditional territory. In the fall of 2010 a newsletter was distributed to the community about the plan renewal.

> **In February, 2011 the CRRC held a fish and wildlife art competition at Tantalus School to engage students in the fish and wildlife work planning process. Contestants' art is featured throughout this plan.**

An evening open house was held on March 1, 2011 to review issues, gather new concerns, and award prizes to the winners of Tantalus School fish and wildlife art competition. Notices were posted around Carmacks to invite all community members to the event. Community concerns about moose, caribou, bear, wolf, bison, elk, and fish populations as well as habitat, harvest and other wildlife and land issues were gathered. All comments received from the community were reviewed by the planning participants.

On March 21 and 22, 2011, the planning participants met to work through the issues and to develop the work proposed here. The Plan was finalized in March 2012.

STRUCTURE OF THE PLAN

This plan groups important issues or concerns by species or by topic. Each section of the plan contains:

1. Current issues
These provide a description of concerns and issues from the community gathered from the 2010 survey and the 2011 open house. Topics may relate to fish and wildlife populations, habitat, harvest, or identify information gaps.

2. Proposed work
This reflects the discussion at the workshop and includes rationale for the proposed work. Also noted is the planning participant(s) who may lead the work.

Illustration: Lynx, *Amber Caovette*

priority concerns

Photo: Caribou, *John Meikle*, YG

PRIORITY ISSUES

The planning participants identified three priority issues through this community planning process:

- Complete a full count of the Klaza Caribou herd.
- Collect baseline information and establish a monitoring program to support the assessment of the effects of industrial development on wildlife throughout the Klaza caribou herd's range.
- Hold a moose management workshop.

Illustration: Caribou, *Trent Blackjack*

ACCESS AND ENFORCEMENT

Access and enforcement are themes that are integrated through each section of the plan. Access is an ongoing concern throughout the LS/CFN traditional territory, especially with recent increases in exploration and mining activity. Increased access through the establishment of new roads or trails directly affects wildlife by changing habitats, increasing disturbance, and providing improved access for harvesters. Being aware of traffic patterns and monitoring access routes would allow for a better understanding of how linear features like roads are affecting wildlife.

Enforcement was a key topic included in the last plan and plays an important role in the management of fish and wildlife. A recommendation from the past plan was to increase enforcement in the LS/CFN traditional territory. In 2011, Yukon government staffed a permanent conservation officer in Carmacks. This new position will increase enforcement capacity in the area and help to address fish and wildlife management issues. The LS/CFN hired a game guardian in 2004 and this position will continue to be filled. This position is very valuable and provides a local presence on the land. The game guardian patrols, takes notes on animal and human activity, and is respected throughout the community. Together with the conservation officer position, enforcement and education in the area will be increased.

THE PREVIOUS PLAN- 2004–2009

Due to time and budgetary constraints there are several items in the previous plan that were not completed between 2004 and 2009. These items were included in the review process by the planning participants and if they were an ongoing concern from the community they were carried forward into this plan. These are summarized in Appendix A and B.

current issues

BEARS

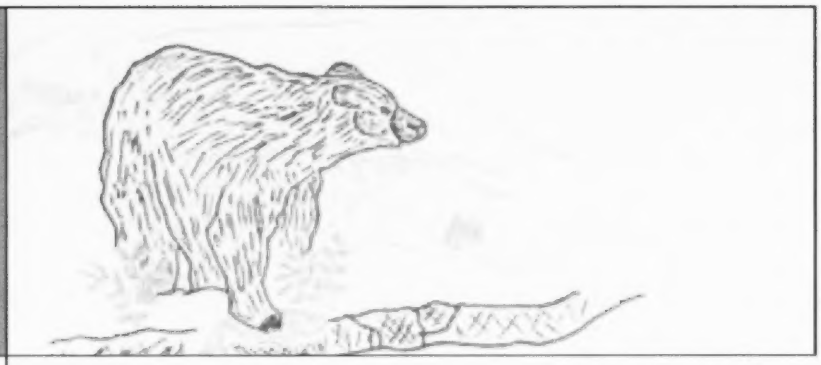


Illustration: Bear, *Kyle Sam*

There are a lot of bears coming into the community.

There is ongoing concern by local residents in Carmacks about the increase in both grizzly and black bears coming into the community. People are worried about the safety of their families and pets. There are a variety of reasons bears may be attracted to the community such as food, garbage, pet food bowls, and improperly secured petroleum products. Education and enforcement is needed to help prevent bears from being attracted to the community and to deal with bears visiting the community.

Proposed work:

Increase education and enforcement to reduce potential human-bear conflicts.

The new conservation officer will provide an increased presence in the community and work with the community to reduce conflicts in the community. The conservation officer will deal with bears in the community in accordance with current human-wildlife conflict policy. The conservation officer and the game guardian will help increase awareness about why bears are coming to the community, ways to reduce the chance of bears entering and staying in the community (that is, ways to reduce the chance of human-bear conflicts), and deliver bear aware courses (LS/CFN, CRRC, YG).

BISON

Increasing numbers and expanding range of the Aishihik Wood Bison Herd concerns local residents.

There is ongoing concern in the community about increasing numbers of bison and range expansion of the herd into Braeburn and Mount Nansen areas. Residents have noticed increased bison hunter traffic, and are concerned about damage to vegetation and impacts of bison and hunter disturbance on other wildlife. There is also concern about the bison population increasing.

Recommendations regarding management of this bison herd are addressed by the Yukon Wood Bison Technical Team; the LS/CFN, CRRC and YG are members of this team. The technical team makes recommendations to YG, LS/CFN and Champagne and Aishihik First Nations (CAFN) about the management of the Aishihik Wood Bison Herd. The draft *Management Plan for the Aishihik Wood Bison Herd in Southwestern Yukon* was released for public review during the winter of 2011-12. The draft plan includes recommendations regarding harvest management to address concerns about the increased herd numbers, expanding range, and the impact of bison hunters on the land.

Proposed work:

Harvest bison to control their numbers to a socially acceptable level, while minimizing impacts of bison hunters on the land.

The draft management plan for the Aishihik Wood Bison Herd sets a number of goals and objectives to manage the herd at a socially acceptable population size and to monitor and manage for range expansion and impacts by bison on the land and other species (such as moose and caribou). Local residents want fewer bison on the land and the ongoing impacts from hunters reduced. To do this harvest activities need to be carefully managed to reduce impacts and hunters need to be informed about the effects of their activities on habitat and on other wildlife species in heavily harvested areas. The planning participants will work together as part of the Yukon Wood Bison Technical Team to recommend measures to manage harvest of bison to address community concerns expressed in this plan and the bison plan (LS/CFN, CRRC, YG).

> **SUCCESS FROM THE PREVIOUS PLAN:**
>
> **An "adaptive management" approach is now used to address local concerns about bison and bison hunting on an annual basis. This allows the Yukon Wood Bison Technical Team, which includes the representatives from LS/CFN and the CRRC, to make recommendations regarding the annual bison hunt that try to address local concerns on the number of bison, bison range expansion, bison on the highway, and impacts from bison hunters on trappers and other local residents, in a timely fashion and in response to changing conditions.**

CARIBOU

Tatchun Herd

Close monitoring of harvest of the Tatchun caribou herd and range use will be important in the next five years.

A composition survey to determine sex ratios and calf recruitment has been conducted on this herd almost every year since 1993. The population is currently estimated at 600 animals, but there has never been a full census of the herd. These surveys indicate that calf survival continues to be good, although the number of bulls compared to cows is low. Harvest is at the maximum it should be for a herd this size.

The previous plan recommended that the Tatchun herd winter range be protected as part of a fire management plan. The planning participants met with Wildland Fire Management and it was confirmed that the Tatchun herd winter range is within in a zone of high priority for fighting fires. This designation should be maintained as 70% of the winter range has been previously burnt leading to high habitat loss for the herd. Because of these wildfires it is believed that the herd is using new areas in winter. Caribou from the Tatchun herd have been seen as far north as the Pelly River. This may lead to the herd being more accessible for harvest in the future.

Proposed work:

Continue with compositions surveys each year in the fall.

Continue monitoring the annual composition of calves, cows and bulls in the Tatchun herd each fall during the rut. These surveys are useful as they provide an early warning of changes in overall population health (i.e. shift in sex ratios) (LS/CFN, YG).

Conduct a full census on the herd.

Censuses are advantageous as they provide estimates of total population abundance. These surveys however are very expensive and it has not been possible to count all herds. If the opportunity arises for this herd to be counted in the next five years the information will be used to inform management decisions and establish sustainable harvest limits (LS/CFN, YG).

Close monitoring of harvest levels.

Past composition surveys show that the sex ratio (the number of bulls compared to cows) is low in the Tatchun caribou herd. This suggests that bull harvest is near the maximum levels the herd can handle. Continuing to monitor all harvest of the herd is critical (LS/CFN, YG).

CARIBOU	Tatchun Herd

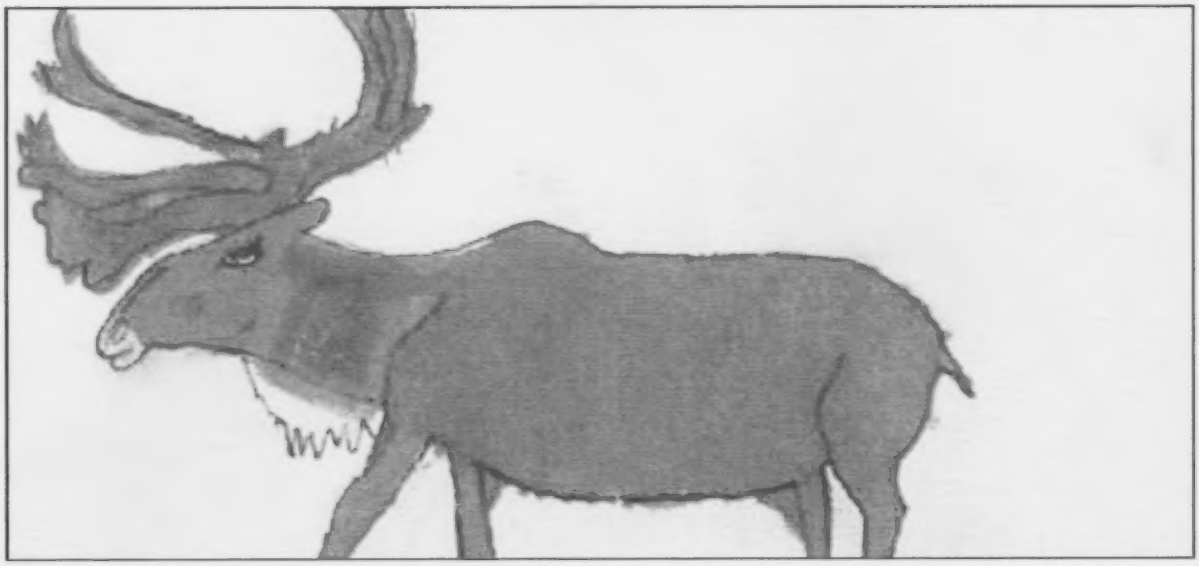
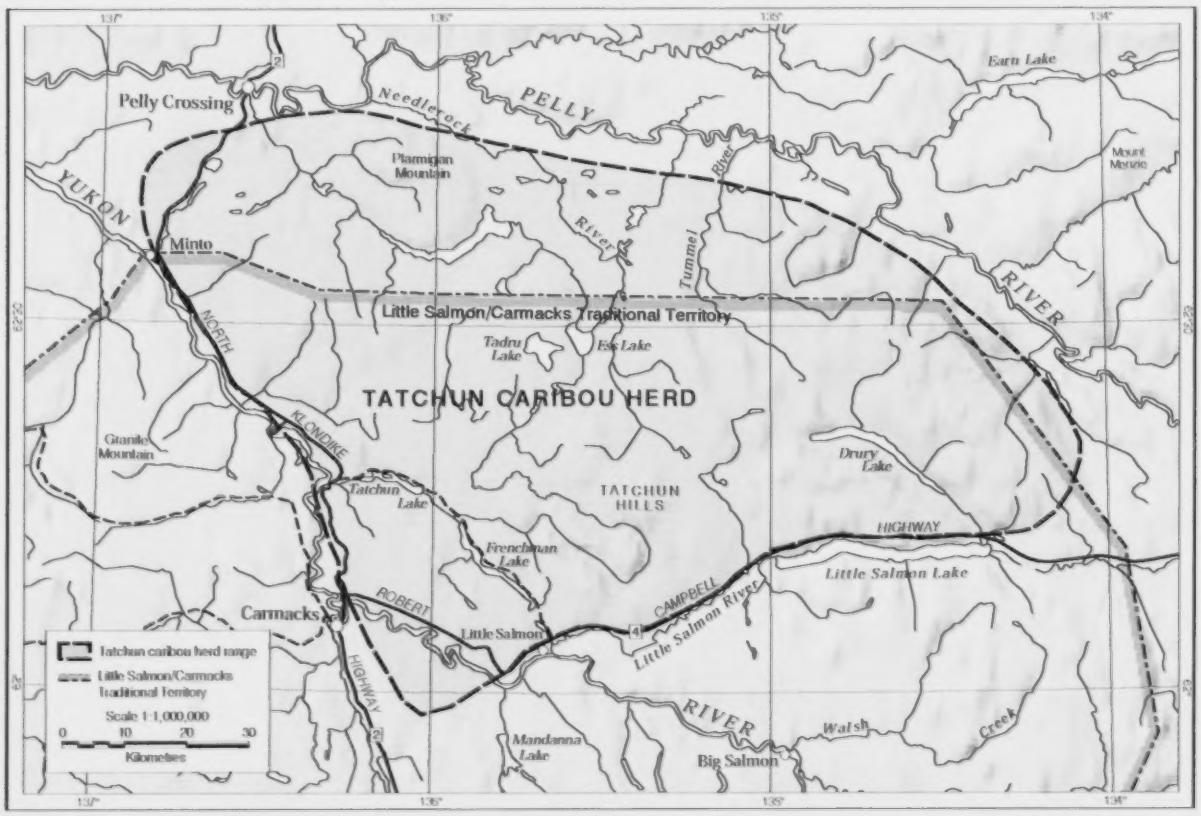


Illustration: Caribou, *Matthew Tom*

Figure 2. Tatchun Caribou Herd Range within the Little Salmon/Carmacks First Nation Traditional Territory.



CARIBOU

Klaza Herd

Understanding the potential impacts of industrial development and human activities on caribou would be valuable for this area as we may be nearing harvest thresholds and increased disturbance and access to the area may cause detrimental effects to the health of the herd.

The Klaza Caribou herd was last monitored in 2004, with results indicating the herd was increasing. The population is estimated at 700 animals. There are ongoing concerns for this herd regarding access and high traffic (mostly from bison hunters and miners) throughout their range. Permits for the Klaza herd are modest because of a deliberate effort to not further increase hunter traffic into the area. There is concern about future development in the herd's range, with a high amount of exploration projects starting in the area.

Proposed work:

Full census survey on the Klaza caribou herd.

Censuses are beneficial because they estimate the total population abundance. These surveys are very expensive and it has not been possible to count all herds. In developing this plan it was agreed that if funding for this type of survey was identified within the LS/CFN traditional territory, the Klaza caribou herd is a higher priority than the Tatchun herd (LS/CFN, YG).

Conduct composition surveys, if the full census can not be completed.

If budgetary constraints do not allow for a full census on the Klaza caribou herd with in the next five years, composition surveys should be conducted to increase our understanding of the herd and allow us to monitor population health (LS/CFN, YG).

Collect baseline information and conduct ongoing monitoring of the Klaza caribou herd.

With an influx of proposed exploration projects occurring in the Klaza caribou herd range, identification and evaluation of effects is needed to understand and mitigate the effects due to multiple projects (past, present and future) that can be reasonably foreseen in the area. The Yukon Environmental and Socio-economic Assessment Board is leading a study to evaluate the impacts of industrial development in the Klaza caribou herd range. The planning participants are interested in contributing to this work by providing technical information (local, traditional and scientific information), and advice on the selection of criteria to assess these impacts. For fish and wildlife, this work will likely be focused on identifying potential impacts on wildlife, habitats, and harvesters, and relevant mitigation. For this work to be successful there is a need to rely on project information brought forward from other sources to more fully understand the potential effects (LS/CFN, CRRC, YG).

CARIBOU	Klaza Herd

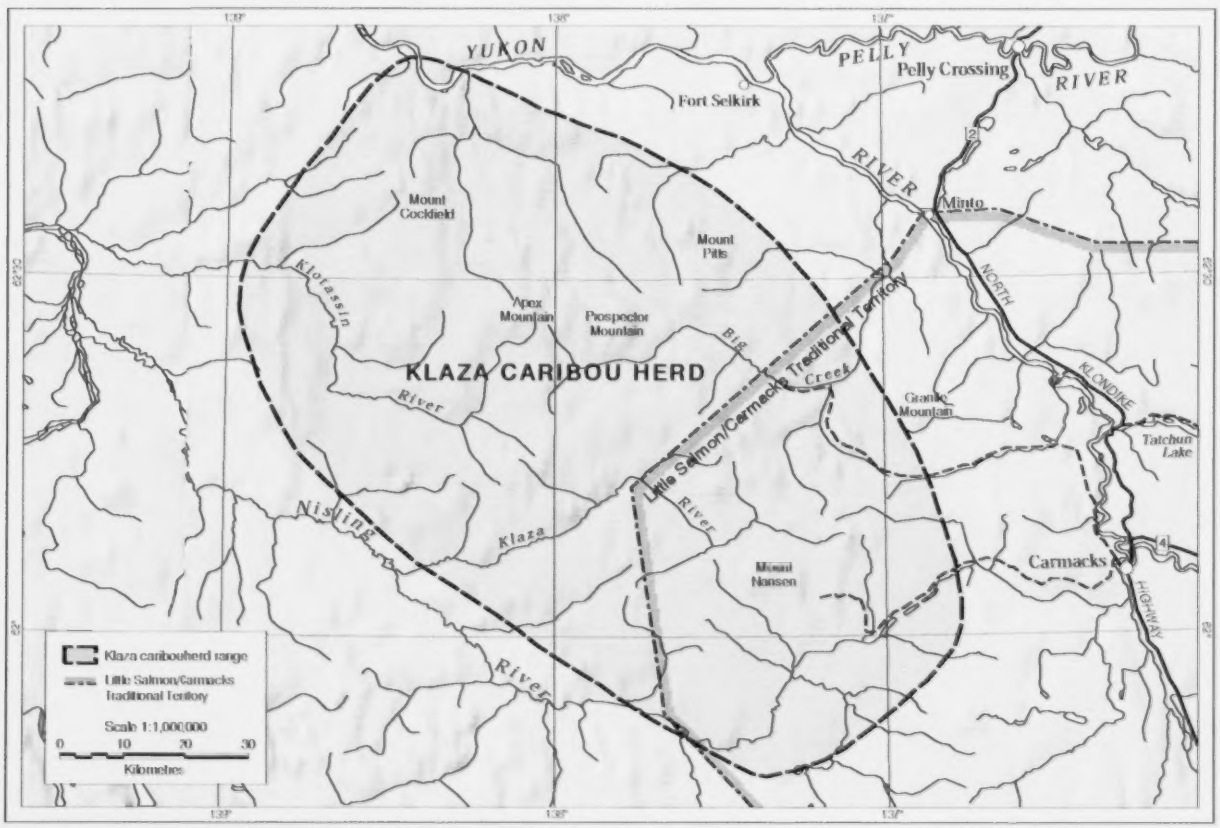
Proposed work: **Update habitat information on the Klaza caribou herd.**

Relatively few data on recent habitat use by the Klaza caribou herd are recorded. An update to current maps is required. The planning participants should collaboratively gather information from population surveys and local knowledge to more accurately map important habitats for this herd. With agreement from the planning participants, these data would be added to the YG Wildlife Key Areas database (LS/CFN, YG).

Continue close monitoring of harvest levels.

Monitoring all harvest of Klaza herd is critical (LS/CFN, YG).

Figure 3. Klaza Caribou Herd Range within the Little Salmon/Carmacks First Nation Traditional Territory.



ELK

Elk ranges are expanding and their population may be increasing in some areas.

The *Management Plan for Elk (Cervus elaphus) in the Yukon* was completed in 2008. The LS/CFN and the CRRC have members on the Yukon Elk Management and Technical Teams. The process to complete the elk management plan involved the opportunity for community input; and LS/CFN and the CRRC were able to bring forward concerns about elk in the Carmacks area. There continues to be concern that the plan focuses mainly on the CAFN traditional territory. The status of the elk populations is currently unknown in the LS/CFN traditional territory and local residents are concerned about expanding ranges. A survey is planned for the Braeburn area in the fall of 2011. Although elk hunting was opened in 2009 the community feels the current permit system limits people's ability to harvest higher numbers of elk. Elk continue to cause problems on local agricultural properties and more information on the status of ticks on elk needs to be shared with the community.

Proposed work:

Engage with the Yukon Elk Technical Team to increase focus on the Braeburn elk herd.

Population density of the Braeburn elk herd is currently unknown and local residents are concerned that the Takhini herd is more of a priority regarding elk management. More focus should be given to the Braeburn herd in order to gather more data on the status of the herd, update range maps, and provide more information to the Yukon Elk Technical Team about community concerns. An elk survey is planned for the Braeburn area in the fall of 2011 (LS/CFN, CRRC).

Review harvest policy with the Yukon Elk Technical Team to limit number elk numbers and range.

Community members have concerns about increasing numbers of elk and the expansion of their range. Elk continue to cause problems with agricultural dispositions, by feeding on local crops. Community members feel that if the permit system was less restrictive in the elk exclusion area and harvest was used more as a management tool to maintain herd population and range, concerns regarding elk would decrease. These discussions could follow the Braeburn herd survey and be raised with the elk team (LS/CFN, CRRC).

Meet with CAFN on mutual concerns regarding elk management.

LS/CFN and the CRRC believe it would be beneficial to meet with CAFN to discuss mutual concerns about elk management and possible solutions (LS/CFN, CRRC).

ELK

Proposed work: **Provide more information to the community about the status of the Braeburn Herd including the status of ticks in Yukon (LS/CFN, CRRC).**

Many locals feel not enough information is being provided to the community about elk management or the status of ticks on elk in Yukon. There should be an information session regarded elk in the LS/CFN traditional territory, and information about elk will be shared regularly in community meetings and newsletters (LS/CFN, CRRC, YG).

SUCCESS FROM THE PREVIOUS PLAN:

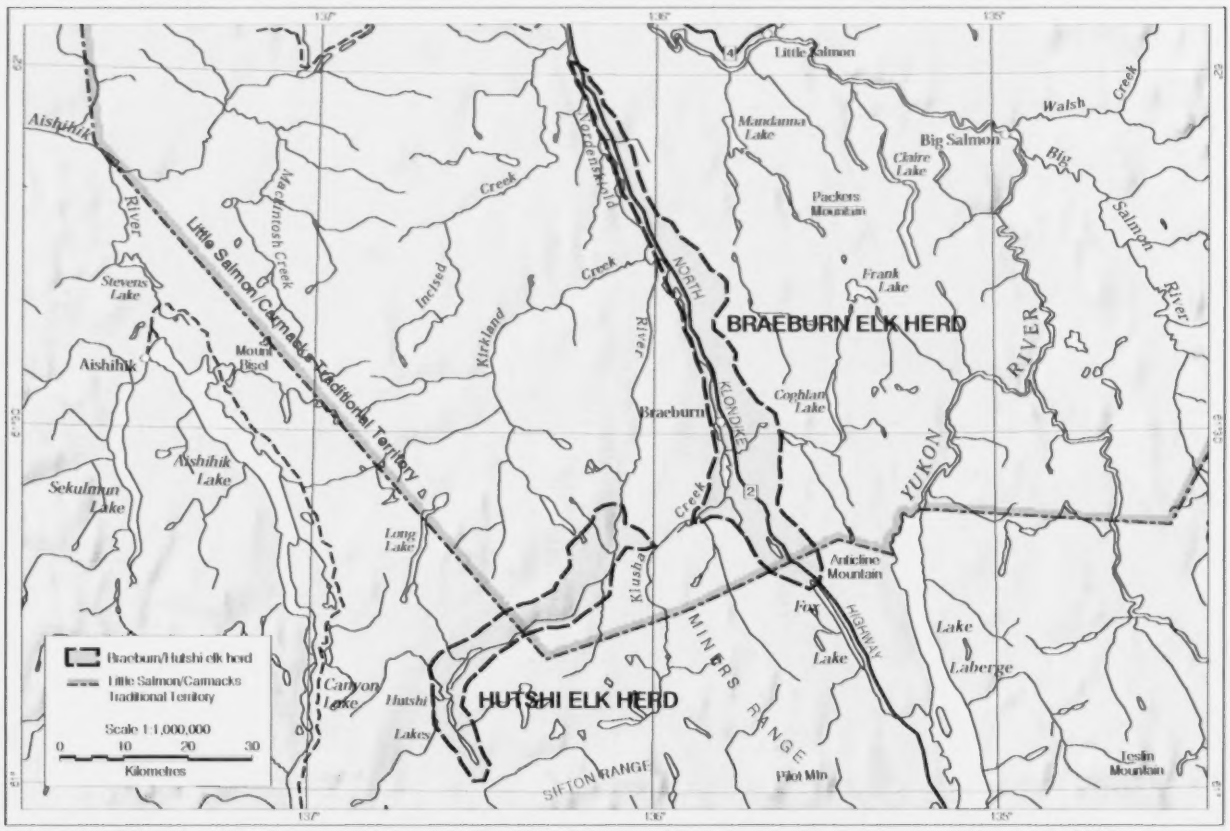
Through the last plan, Little Salmon/Carmacks First Nation and the Carmacks Renewable Resources Council were able to bring forward concerns the community had with elk to the Yukon Elk Technical Team. Both the LS/CFN and the CRRC are members of the team. In 2009, as recommended in the Yukon Elk Management plan, a permit harvest on elk was opened.

UPDATE:

An aerial survey of the Braeburn Elk herd was conducted on October 14, 2011. The survey extended along the North Klondike Highway from Little Fox Lake to Montague House. Based on survey results, we estimate that the Braeburn herd currently contains about 50 animals.

Photo: Elk, YG

Figure 4. Braeburn Elk Herd Range within the Little Salmon/Carmacks First Nation Traditional Territory.



FRESHWATER FISH

Local residents have concerns about fish populations in areas where there is high fishing pressure and easy access, and where there is commercially guided fishing.

Local residents are concerned about trout populations in Frenchman, Mandanna and Twin Lakes (east and west). There is a feeling by community members that trout populations and fishing pressure should be monitored in these lakes to better understand the status of lake trout populations and determine if the current level of harvest is affecting trout numbers. Surveys can only be done in a few lakes or river systems in Yukon each year. The *Status of Yukon Fisheries (2010)* provides an overview of the history and current status of Yukon fisheries, identifies current issues, and provides suggestions for the direction of fisheries management. The same lakes that residents expressed concerns about during this planning process are also addressed in the status report.

Frenchman Lake is a medium-sized lake with a small population of lake trout and easy access. It has been several years since there have been studies of the fish population or the harvest (2005 and 2006) so current information is not available. Frenchman Lake is designated as conservation waters in regulations.

Mandanna Lake has had an angling limit of zero trout since 2001/2002, but fish population studies done in 2005 were inconclusive about population recovery. Mandanna Lake is identified in the LS/CFN Final Agreement as having special significance to the First Nation, and there is a specific management plan for the lake.

Twin Lakes are small, have a small population of lake trout, have easy access, and get a lot of fishing pressure. Netting studies done in 1997, 2002, and 2007 caught no lake trout. New monitoring methods for lake trout may be better suited for determining population status. Twin Lakes are Special Management Waters.

There is continued concern about vehicles crossing Klusha Creek at the outlet of Braeburn Lake in the fall affecting whitefish spawning areas by damaging spawning habitat, destroying eggs, and causing siltation.

There is also ongoing concern in the community about the levels and methods of harvest in the fly-in commercial guided and self-guided angling operations within the traditional territory. Local residents would like to have a better understanding of the operation and what these companies are doing to manage the fish populations in these lakes. All anglers that fish on lakes must abide by the fishing regulations.

Proposed work:

Frenchman Lake.

Carry out a fish population assessment of Frenchman Lake focusing on lake trout and carry out a survey of angler harvest to determine the state of the resource and whether the harvest is sustainable (LS/CFN, YG).

Mandanna Lake.

Follow the workplan set out in the Mandanna Lake Management Plan. Mandanna Lake has a management plan where recommendations regarding trout management have been made (LS/CFN, YG).

Proposed work: **Twin Lakes.**

Carry out a fish population assessment of Twin Lakes focusing on lake trout and carry out a survey of angler harvest to determine the state of the resource and whether the harvest is sustainable

Signage should be erected at the lake letting anglers know about the small size of the lake trout population in Twin Lakes. Recommendations to anglers could include things like: fish conservatively, limit harvest, and /or limit catch and release (LS/CFN, CRRC, YG).

Braeburn Lake.

Investigate mitigation measures for the Klusha Creek whitefish spawning area. This will include looking into the possibility of constructing a bridge over the area to decrease detrimental effects to whitefish in the creek. Signage about this issue should be erected at the ford. Local residents will be contacted to provide their local knowledge (LS/CFN, CRRC).

Fly-in commercially guided fishing lakes.

Invite the owners of fly-in operations to meet with CRRC. Have an initial meeting with the owners of fly-in operations to gain more information on catch and release methods and how many fish are being caught. The community would like to have a better understanding of fishing practices in these areas (CRRC).

SUCCESS FROM THE PREVIOUS PLAN:

Due to concerns about whitefish populations at Braeburn Lake a variety of work was completed in the area between 2004 and 2009. Residents of Carmacks were hired to collect information about harvest in the area, and to monitor spawning in the fall and early spring. Surveys of adult and juvenile whitefish in the lake were completed. Results of these surveys are being used to investigate potential solutions to increase low whitefish recruitment.

Community members had concerns about lake trout in Ten-Mile Lake; this lake was surveyed in 2004. Information gathered indicated that the lake had an average level of trout stocks. Regulation changes recommended by the previous plan led to a Conservation Water Designation for the lake, where the limit on trout is two, compared to previously being three. Enforcement in the area increased in the winter and new signs were put up at the lake with information on the new regulations.

FOXES

The number of foxes in town is increasing and there is a concern about people feeding them. The foxes are becoming more bold and aggressive.

Foxes, much like bears, are causing concern in the community as increasing numbers of foxes are hanging around town. Local residents are worried about people feeding foxes and thereby making them a nuisance especially at the restaurants and the school. There is also concern about the spread of disease and foxes becoming aggressive towards people and pets.

Proposed work: **Increase education and enforcement to reduce foxes in town.**

The conservation officer will deal with foxes in town in accordance with the current human-wildlife policy. The conservation officer and game guardian will work with the public about problems created by feeding foxes and help to promote responsible disposal of garbage, both of which will help deter foxes from entering and remaining in the community. Trapping of foxes around the community will also be encouraged (LS/CFN, CRRC, YG).

Illustration: Fox, *Janey Lee Tulk*

HABITAT

There have been a number of applications for land and industrial activity in important wildlife habitats.

Habitat, much like access and enforcement, is an element of every topic addressed in this plan. This section alone does not cover all concerns related to habitat. Other concerns are integrated throughout the plan.

There continues to be an interest in pursuing protection for the area between Tatchun Creek and Minto along the Yukon River. This area is important to moose during calving, summer and winter, as well as being used by spawning salmon, nesting and migrating raptors and waterfowl, and numerous other wildlife. Locals are concerned that land dispositions and river traffic during the summer may have negative effects on this regionally important habitat. LS/CFN will need to meet with Selkirk First Nation work in this area because it is in an area of overlap.

There is also concern about land disposition applications on the Magundy River, Little Salmon River, and Little Salmon Lake. This area is used by wintering caribou, wintering and calving moose, spawning salmon, and numerous other wildlife.

Community concerns were expressed about disturbance to wildlife and contaminants associated with exploration and mining camps and the level of inspection and enforcement related to mining.

Proposed work:

Continue to collect information and explore options for assessing the protection of the area along the Yukon River between Tatchun Creek and Minto.

This work is identified as a high priority for LS/CFN and CRRC and will involved further research and data gathering in the area (LS/CFN, CRRC).

Identify and, where appropriate, investigate the need and the potential for a local area plan or planned land development to address concerns around development on Magundy River, Little Salmon River, and Little Salmon Lake.

In the absence of regional land use planning, local land issues have been addressed in other parts of Yukon through local area plans. The Yukon Department of Energy, Mines and Resources coordinates these processes and the LS/CFN and CRRC will contact this department to identify the need for planning in this area (LS/CFN, CRRC).

Maintain involvement in environmental assessments.

Concern about the negative effects of human land uses on wildlife can be brought forward through the YESAB environmental assessment process.

Communicate with the local Department of Energy, Mines, and Resources staff on inspections of exploration and mining exploration activity sites.

YG EMR staff can provide the CRRC and LS/CFN with more information about activities and enforcement on the land (LS/CFN, CRRC, YG).

MOOSE

habitat

Understanding the potential impacts of industrial development and human activities on moose would be valuable in the area northwest of Carmacks.

As described in the section about Klaza caribou, the area northwest of Carmacks is experiencing a high level of mining exploration and active mining. There is concern about how this activity could affect harvest and disturbance of moose. Late-winter habitat of moose in this area was mapped in March, 2011 during a deep snow year, with part of the funding coming from industry.

Proposed work:

Continue to map important habitat of moose in the Carmacks West area.

Important habitat should be mapped using both technical and local knowledge (LS/CFN, YG).

Collect baseline information and conduct ongoing monitoring on moose in the area northwest of Carmacks (in the Klaza caribou herd range).

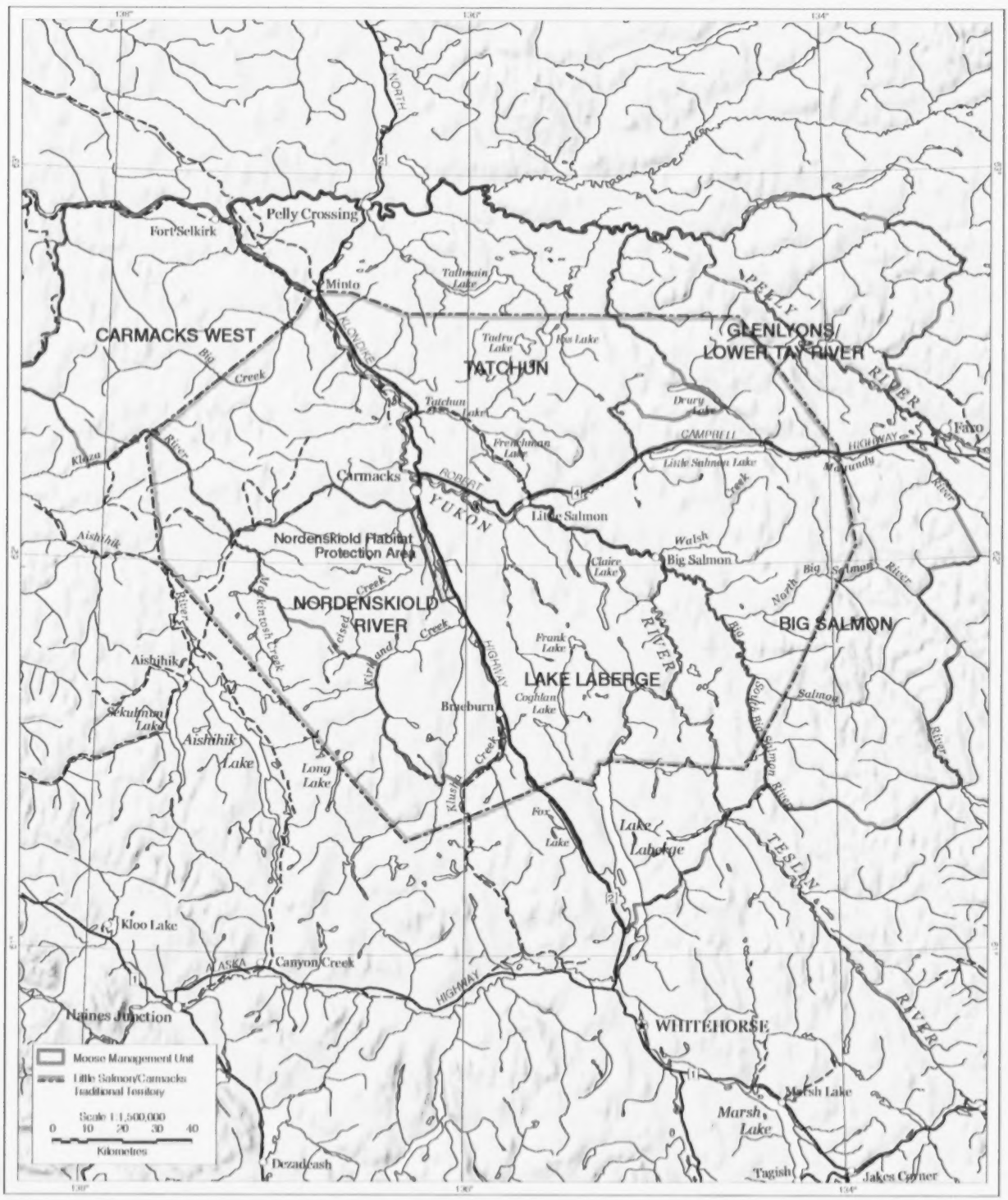
With an influx of exploration projects occurring in the area northwest of Carmacks, identification and evaluation of potential impacts are needed to understand and mitigate the effects due to multiple projects (past, present, future) that can be reasonably foreseen in the area. As described above, the Yukon Environmental and Socio-economic Assessment Board is leading a study to evaluate the impacts of industrial development in the Klaza caribou herd range. The planning participants are interested in contributing to this work by providing technical information (local, traditional, and scientific information), and advice on the selection of criteria to assess these impacts (LS/CFN, CRRC, YG).

populations

Moose population numbers are low or are unknown through the LS/CFN traditional territory.

Residents are concerned about low moose numbers and high harvest within the LS/CFN traditional territory. Areas surveyed in the last 15 years have shown low numbers of moose and other areas have limited information about population health. With increased exploration activity and potential for large scale mining activity in the near future it is important to better understand moose populations in the area. There is a need for more community engagement and a coordinated effort to manage sustainable populations of moose in the LS/CFN traditional territory.

Figure 5. Moose Management Units for Monitoring within the Little Salmon/Carmacks First Nation Traditional Territory.



PAST MOOSE SURVEYS:

Nordenskoiold
- Surveyed in 2009.
- Results indicated low density, with a total of ~300 moose.
- It is thought that harvest is at the upper threshold that the population can sustain.

Carmacks West
- Last surveyed in 2007. Density low but increased since last survey in 1987.
- This area has been closed to licensed harvest since 1987, but there is some First Nation harvest.

Tatchun
- Surveyed in 2011.
- Results show low moose numbers for this area.
- Currently harvest in this area is at the maximum level.

Lake Laberge
- Never been surveyed.
- Harvest is thought to be within sustainable limits; limited access.
- Based on the habitat in the area, moose numbers should be about average.

Big Salmon
- Surveyed in 1998 and 1993.
- Numbers at this time were high with 200 moose per 1000 square kilometers.
- Recent population numbers are unknown.

Glenlyons
- Surveyed in 2004, portion surveyed in 2011.
- Very high number of moose were recorded here.
- There are no concerns about moose numbers in this area.

Proposed work: **Hold a moose management workshop.**

Hold a moose management workshop to gather concerns and comments from the community as well as provide information to the community about the status of moose in the LS/CFN traditional territory. This workshop will help in gathering information about harvest and engage the community in moose management. This workshop will also incorporate ideas and solutions from other areas in the Yukon. The gathering will include sharing information on when cow harvest is done, how it was done traditionally and why it is done (LS/CFN, CRRC, YG).

Proposed work: **Monitor moose harvest information.**

Work together to monitor moose harvest by collecting harvest information in the area. Currently harvest information from Northern Tutchone First Nation hunters is collected by the game guardian and all harvest information from First Nations is presented at May Gathering. LS/CFN can learn harvest from non-Northern Tutchone First Nation hunters in the traditional territory by maintaining the sign on the Mount Nansen Road requesting that these hunters report to the First Nation. YG will continue to present harvest information from licensed hunters to the CRRC every year (LS/CFN, YG).

Increase and encourage ground-based monitoring program.

Ground-based monitoring surveys conducted in Mayo have been successful in furthering our knowledge about moose population health. Participation in the Carmacks program is currently low. If more people were to get involved the program could be more useful. YG and LS/CFN will provide more information to the community about the program and what it involves (LS/CFN, CRRC, YG).

Survey the Tatchun moose population.

This population was last surveyed in February 2011, after the usual early winter census dates, and some moose may have moved out of this area by then because of deep snow. It would be valuable to re-survey the area with a low-intensity survey to see if numbers are as low as the 2011 survey suggested, to make sure present harvest rates are sustainable. These surveys are expensive and only a few surveys can be conducted annually throughout Yukon. This work will need to be considered in the context of Yukon wide moose inventory priorities (LS/CFN, YG).

Illustration: Bull and Cow Moose, *Kyle Sam*

RECREATION

There are concerns that river travelers and employees of exploration companies are causing disturbance to fish and wildlife.

There are concerns about river travelers causing damage to heritage sites along the river and leaving messes in local fish camps and camping areas. Local residents felt that not enough information is given to tourists about fire safety, cleaning up after using a camping spot, and fish and wildlife regulations in Yukon.

With an increase of exploration activity with in the LS/CFN traditional territory, the impacts on the land and wildlife from recreational activities of employees of exploration companies could be substantial. In particular, due to the ability for exploration to occur in remote areas, damage caused by recreational off-road vehicles use by employees should be mitigated.

Proposed work:

Provide information about the Yukon River corridor to tourists.

Recommend that tour companies and YG Tourism and Culture provide information on their websites and in pamphlet form to tourists about respecting the Yukon River corridor. LS/CFN crews traveling the Yukon River and the conservation officer will continue to put out fires left unattended and clean up garbage while educating tourists and patrolling heavily used areas and areas of cultural importance. A brochure can be developed in different languages for distribution on the Yukon River (LS/CFN, YG).

Work with project proponents to reduce the impact of personal off-road vehicles use by employees of exploration and mining camps.

Much success has been made in other areas of Yukon by working with project proponents to reduce the impacts of their staff from personal off-road vehicle use (LS/CFN, YG).

Illustration: Ducks, *Kyle Sam*

SHEEP

Disturbance to sheep is a concern at Magundy, Little Salmon Lake and Division Mountain due to increased access to these small populations.

Sheep sometimes move down to the road near the Magundy River and Little Salmon Lake, making them vulnerable to opportunistic hunting. Disposition of land in these areas could also disturb sheep and block movement corridors. Access into the Division Mountain area is used by exploration and mining companies, and bison hunters. These small populations can be disturbed or removed very quickly; therefore their populations should be monitored carefully.

Proposed work:

Identify ranges of sheep at Magundy and Little Salmon Lake.

There is some information on sheep use of habitat in these areas, but it is limited and there is a need to document existing local knowledge and gather additional knowledge about these sheep ranges. YG and LS/CFN will update population range maps for sheep in these areas to better understand their movement patterns and where they are most vulnerable (LS/CFN, YG).

Evaluate use of access into Division Mountain and recommend mitigations if negative effects on sheep are likely.

Observations by the conservation officer and game guardian will be used to assess whether the level of traffic in this area is sufficiently great to have negative effects on sheep. Further discussions on mitigation by the planning participants may be required at the mid-term evaluation. Efforts will be made to educate users on the importance of the area for sheep populations. This area falls within the overlapping traditional territories of Champagne and Aishihik First Nation (CAFN) and LS/CFN, and are CAFN Category A Settlement Lands in the area; any work on this issue should be coordinated with CAFN (LS/CFN, YG).

Photo: Dall sheep, *K. Meister*, YG

TRAPPING

Due to the high operating costs involved and low fur prices, trapping activities in the LS/CFN traditional territory have continued to decrease in recent years.

Administration of traplines has become more complex and confusing, especially to elders. Traplines are important to families and traditionally have been passed down from generation to generation. Traplines are administered under the *Yukon Wildlife Act* to allow for the exclusive opportunity for commercial trapping in the area. It is the role of the RRC to review trapline use and make recommendations to YG and LS/CFN on trapline renewal as well as allocation. Utilization criteria for these reviews are defined by the RRC. Establishing criteria is part of a transparent process for assessing trapline use, as set out in the First Nation Final Agreements. Some community members are concerned that these criteria do not reflect traditional uses of traplines and the present financial realities of trapping. Increased support for trappers and trapper education could increase the number of people using traplines.

Proposed work:

Closely monitor trapline administration.

Monitor trapline administration and assist trapline holders with administrative tasks. This will involve letting trapline holders know when trapping courses are being held and when it is time to renew traplines. The Carmacks district conservation officer and office are now in place. This will facilitate greater access to information on workshops, licensing and trapline renewal for Carmacks residents. In recent years, the CRRC has made it a priority to work with trapline holders to complete necessary trapline paperwork (LS/CFN, CRRC, YG).

Use traplines to educate youth.

Taking youth out on the land and teaching them about trapping is an important method in educating them about wildlife and the land. It is a useful way to show youth what it is like to live off the land and how important it is to respect it (LS/CFN).

Review criteria for trapline renewal.

Guidelines developed by the CRRC require revisions to reflect individual local and global situations (CRRC).

Explore measures to increase trapline activity.

Trapping is a legitimate and sustainable use of a renewable resource, and is important to the economy, culture and lifestyle of the community. There is a range of measures that may help increase use of traplines that should be explored. Encouraging trapline holders to permit young people to trap on their traplines under assistant licenses will both strengthen the youths' training and achieve greater use. There may be a need to provide an avenue for trappers and assistant trappers to connect with one another (LS/CFN, CRRC).

WOLVES

Wolf predation in and around town continues to concern local residents.

Wolves are attracted to dogs and other domestic animals; a number of dogs have been taken recently and the community is concerned about public safety. In 2010, the Yukon Fish and Wildlife Management Board (YFWMB) and Environment Yukon started a review of the *1992 Yukon Wolf Conservation and Management Plan*.

Proposed work:

Address wolves that are causing problems near town.

The Carmacks District conservation officer is the first point of contact for addressing human-wolf conflicts. In accordance to current human-wildlife conflict policy the YG conservation officer, CRRC and LS/CFN will work together to remove wolves that are causing a threat to public safety, and educate community members on how minimize attractants in order to deter wolves from coming into town (LS/CFN, CRRC, YG).

Review traditional territory-specific wolf conservation and management issues following the completion of the WCMP review.

Carmacks residents were able to contribute to the review of the wolf conservation and management plan throughout the review process. The review committee held a community meeting in Carmacks to get input from community members on wolf management. This plan will address wolf management Yukon-wide. Additional work by the community on this issue should follow the outcomes of the WCMP review (LS/CFN, CRRC, YG).

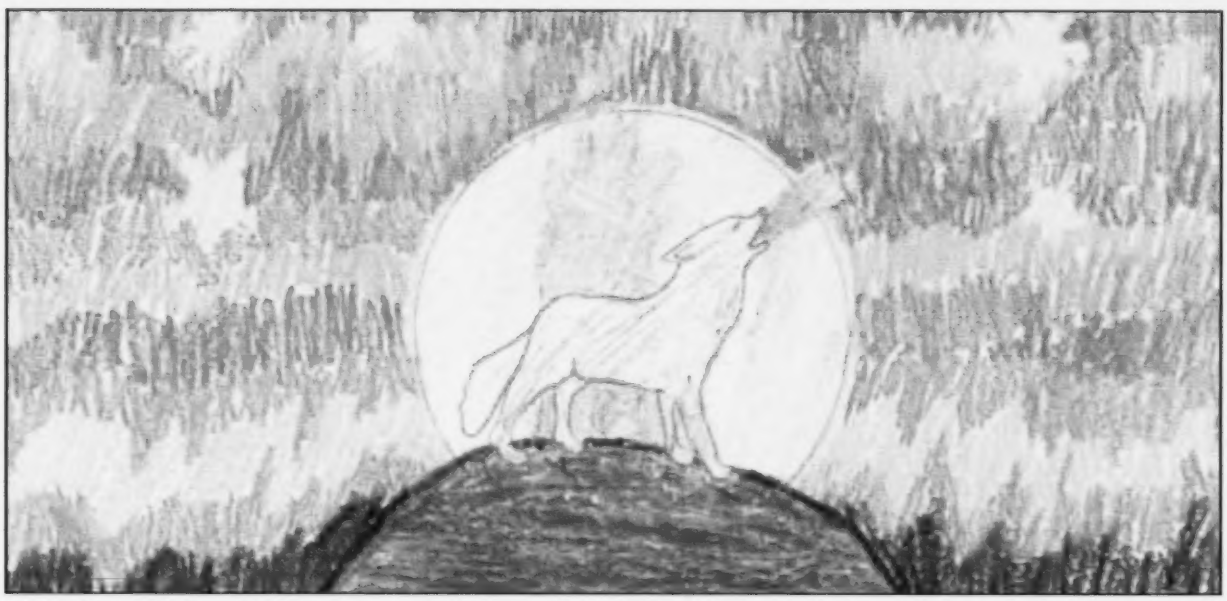


Illustration: Wolf, *Savannah Gage*

work plan review

Photo: *Michelle Sicotte*, YG

The planning participants will undertake two reviews of the 2012-2017 plan. The mid-term review will happen in 2014, and will determine progress made on the plan and identify any needs to adjust the focus of the plan. The second review will happen in 2017 following completion of the plan implementation. At that time the planning participants will identify proposed work that was completed and what was not completed and why. This information will assist in further work. Depending on the outcome of this assessment, the planning participants may choose to proceed with a follow-up plan to address outstanding, ongoing, or new concerns and possible work. Results of the reviews will be made accessible to the community, either through local newsletters or public meetings.

This plan is intended to identify and alleviate fish and wildlife concerns and to assist in facilitating the cooperative management of fish and wildlife populations and their habitat in the Little Salmon/Carmacks FN traditional territory. As such, and through mutual agreement, the planning participants may agree to modify or refocus this work plan to address new information or management direction at any time during plan development or implementation.

Illustration: Rabbit, *Isaiac Tracey*

appendices

APPENDIX A

Photo: *Martin Couchesne*

Concerns from previous community-based fish and wildlife management plan for the Little Salmon/Carmack First Nation traditional territory carried forward to this plan.

2004-2009 Concern		2004-2009 Solutions	Page reference in 2004-2009 plan	Page reference in 2012-2017 plan
1	Range expansion of bison into the Braeburn and Mount Nansen areas concerns local residents because of potential damage to vegetation, increased hunter traffic, and impacts of bison and hunter disturbance on other wildlife.	Recommend ways to reduce impacts of bison to the Yukon Wood Bison Technical Team.	11	11
2	The Tatchun caribou herd is small, heavily harvested, and should be managed carefully.	Carefully monitor size and composition (percentage of calves, bulls and cows) of the Tatchun caribou herd, ensure safe harvest rates and protect its remaining winter range from fire.	14	12
3	Any increase in permits of the Klaza caribou herd will lead to more hunters and disturbance.	Manage harvest of the Klaza caribou herd to minimize disturbance and monitor hunter activity in this range.	16	14–15
4	Many local residents do not support expanded numbers and range of elk unless people can hunt elk.	Recommend to the elk management plan that a harvest be considered as a tool to manage expanding elk herd range.	20	16–17
5	There are concerns about levels and methods of harvest and locations of guest cabins of the fly-in commercial fishing operations on local lakes. There is a need to have the owner involved with the community.	Work to exchange information between the community and the fishing lodge owner to understand the fishing activities on these lakes.	29	20

APPENDIX A

	2004-2009 Concern	2004-2009 Solutions	Page reference in 2004-2009 plan	Page reference in 2012-2017 plan
6	There is a need to protect the Yukon River from Tatchun Creek to Minto as important habitat for moose, salmon, and other wildlife.	Conserve the important moose and salmon habitat along the Yukon River from Tatchun Creek to Minto.	32–33	22
7	Moose populations are low, populations need to be counted, and harvest by all users monitored.	Count moose from the air and monitor composition of moose populations using ground-based surveys; monitor harvest by all users; and improve information for First Nation hunters.	35	25–26
8	Disturbance by river travelers to wildlife, wildlife habitat, and fish camps is increasing along the Yukon River.	Map important habitat along the Yukon River, identify and publicize designated camping spots in areas with the least potential for disturbance, and get information to river travelers about how to minimize their impacts.	40	27
9	People want incentives to trap.	More information is needed about Yukon Fish and Wildlife Management Board Fur Committee's consideration of incentives.	42	29
10	Wolf predation in and around Carmacks has been high in recent years.	Use community-based trapping to manage local wolf populations.	42	30

APPENDIX B

List of concerns raised by the community but not addressed in the 2012 – 2017 plan.

Concern	Description	Why the concern was not addressed
Salmon	There is a need to document salmon spawning areas with in the LS/CFN traditional territory. The salmon management system is not well understood in the community. Local residents are concerned about pollution affecting salmon populations.	Concerns related to salmon are under the jurisdiction of Department of Fisheries and Oceans, Canada, and not within the mandate of the planning participants.

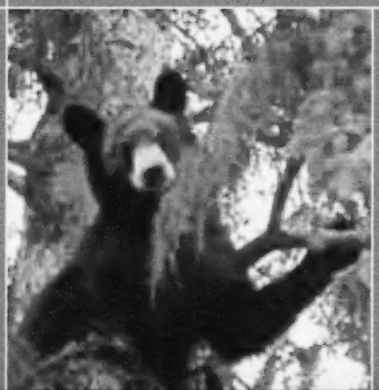
APPENDIX C

Summary of Proposed Surveys of Mammals, 2012-2017.

Survey	Description	When?	Who?
Tatchun Caribou Composition Survey	Continue annual low intensity aerial surveys in fall to determine composition of the Tatchun caribou herd by age and sex.	Annually	YG
Tatchun Caribou Count	Aerial survey in early winter to determine Tatchun caribou herd population size and composition by age and sex.	During Plan Term	YG
Klaza Caribou Composition Survey	Low intensity aerial survey in fall to determine composition of the Klaza caribou herd by age and sex; conducted only if census not completed.	2-3 Surveys in Plan Term	YG
Klaza Caribou Count	Aerial or ground-based survey in early winter to determine Klaza caribou herd population size and composition by age and sex.	Early in Plan Term	YG
Tatchun Moose Population Survey	Low-intensity aerial survey in early winter to determine Tatchun moose population.	During the Plan Term	YG

Summary of Proposed Surveys of Fish, 2012-2017.

Survey	Description	When?	Who?
Frenchman Lake – Fish population assessment	Carry out a fish population assessment of Frenchman Lake focusing on lake trout.	During Plan Term	YG, LS/CFN
Frenchman Lake – Angler harvest survey	Ground-based surveys in the spring of waterfowl numbers in local wetlands.	During Plan Term	YG, LS/CFN
Twin Lakes (East and West) – Fish population assessment	Ground-based surveys in the spring of waterfowl numbers in local wetlands.	During Plan Term	YG, LS/CFN
Twin Lakes (East and West) – Angler harvest survey	Ground-based surveys in the spring of waterfowl numbers in local wetlands.	During Plan Term	YG, LS/CFN



Yukon
Environment